ABSTRACT

A computer simulation method is provided for modeling the behavioral expression of one or more agents in an environment to be simulated, then running a simulation of the modeled agent(s) against real-world information as input data reflecting changing conditions of the environment being simulated, and obtaining an output based on the modeled agent(s) response(s). The simulation method models the underlying cultural, social, and behavioral characteristics on which agent behaviors and actions are based, rather than modeling fixed rules for the agent's actions. The input data driving the simulation are constituted by real-world information reflecting the changing conditions of the environment being simulated, rather than an artificial set of predefined initial conditions which do not change over time. As a result, the simulation output of the modeled agent's responses to the input information can indicate more accurately how that type of participant in the simulated environment might respond under real-world conditions. Simulations can be run on global networks for agent types of different cultures, societies, and behaviors, with global sources of information. Simulation environments can include problems and situations in a wide range of human activity. Robust new visual tools are provided for discerning patterns and trends in the simulation data, including waveform charts, star charts, grid charts, and pole chart series.